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SECOND DENTITION AND ITS ACCOMPANIMENTS.

A LECTURE DELIVERED AT THE HARVARD MEDICAL SCHOOL.

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I HAVE spoken of the disturbances which exist at the time of the first dentition. It is a time when the nervous system of the child is very easily disturbed, and when a very large number of children die. They are said to die of "teething;" that is the word very frequently made use of in the reports. But it is not a fair statement; the death is consequent in the great majority of cases upon improper feeding. The false pride of the parent has led him or her to indulge the child in this or that improper article of diet, so that it becomes disgusted with the food which nature provided in the mother's breast, and with the nearest approach to it which can be prepared artificially.

Let us pass over a few years, however, and suppose that the dangers attendant upon the first dentition have been overcome. The tough children have fought the battle through, and have survived the diarrhœa caused by fried potatoes, and the headaches produced by griddle cakes, and the nausea and vomiting following upon the use of pork and beans and mince pies. And now a new set of disturbances comes up, even with the children who have been properly fed and clothed. Diarrhœa begins with those who escaped before; loss of appetite, headache, pains in different parts of the body show themselves. You are called in to give your advice upon these points, and to see if you can discover why the little boy or girl is ailing. Look in the child's mouth. You know that it is somewhere from five to twelve or thirteen years old, and that during this time it is likely to be losing the twenty so-called milk teeth, and that others are coming in their places. The nervous system of the child is not quite so easily, or rather not so seriously, disturbed as it was while those milk teeth were pushing their way; but there is a very great change going on, and that nervous system is more easily disturbed than during the last two or three years. It is the part of the dentist to say if this or that tooth should be removed in the

case of the particular child, but it is your business or mine, as its medical attendant, to say that dentition is going on, and that due caution is to be had in the matter of diet and exercise and sleep. It is not simply the case that the fang of this tooth has become absorbed as another is growing up beneath it, but there is also a new tooth coming in a part of the mouth that has had no tooth before; and the eruption of that tooth in an improperly fed and poorly clad child is very likely to produce wakefulness, or drowsiness, or nausea, or cough, or an eczema, or some other disturbance of one or another part of the body. If you find any of these disturbances, it is quite as much your duty to look at the teeth, and to give your caution about feeding and clothing and exercise, if you find a reason in the gum, as it is for you to feel the pulse or look at the tongue, and form your opinion and give your instruction from the signs afforded by them. Bear this in memory, that disturbed digestion will as surely produce cough in one patient as it will produce headache in another; and that the second dentition will often produce as much disturbance as the first, although the sufferer may be better able to bear it, and a simple chill or a febrile attack of a few hours' duration may be had in place of what would be a serious convulsion in the younger child.

I think it would be unpardonable neglect were I not to speak in this connection of the fact that dentition is by no means completed at this time, although about this period a fourth molar is making its way into sight. Nor should I forget to call your attention to the fact that in some families, even as late as the eighteenth or twentieth year, I have seen these fourth molars making their way and producing a serious amount of disturbance, both in the digestive and in the nervous system. Probably there is a majority of you gentlemen who remember the pain and soreness and vertigo which attended the appearance of your wisdom teeth, and how for weeks and months, yes, perhaps for several years, before they got their growth, they pressed upon the gum and produced loss of appetite and restless nights and irritable days. Those of you whose memory upon this point remains green can easily imagine the suffering of the little child whose mouth is filled with torments, or of the older boy or girl who is forced to study or to labor with these causes of disturbance still at work. At this time, when these fourth molars are coming through, occurs the age of puberty, a period of excessive nervous disturbance with those who are thus disposed. It matters not whether the subjects be male or female. It is a season when great caution should be exercised by those who have children under their observation and care, and many male as well as female children have been ruined in health because the parents have been ignorant of the periodical disturbances which are constantly going on. The first of these periods of disturbance is at the appearance of the first tooth; this is usually

when the child is taking its natural food. The second period is when the system has had something of a rest, but when a mistaken attempt has been made to educate its stomach to digest grain and fruit, but no attempt has been made to retain its fondness for milk; this is usually before the close of the second summer, and when the larger proportion of the deaths take place. The third is when the early part of the second dentition is going on. The fourth is at that time when the fourth molars are beginning to make their way, and when the effort of nature is made to declare the peculiarities of sex. At each of these times the child is more liable to disease than at others. These are the seasons when our profession is the most likely to be consulted by careful parents, and when diseases of the brain, of the stomach, and of the lungs are the most likely to begin.

To laugh at the unmanliness of the boy or girl who is teething is a matter of as great absurdity as to laugh at the weakness of one who is coming down with a fever. It is not necessary to make babies of them, but it is as well to watch them, and to see that they are not overworked either in body or in mind. The old lady will say that they are only "growing pains" which are causing the disturbance, but it does not hurt to grow; if it did, the young man or woman of eighteen would be always in pain, and the little one of a few months, who has sometimes gained a pound or more a week, would never smile.

Look in the mouth, therefore, and let your attention be paid to the teeth and gums as well as to the tongue.

CASES OF OVARIOTOMY.

BY JOHN HOMANS, M. D.

Case IV. — *Multilocular Cyst of Left Ovary; Peritonitis at Time of Operation; Fæcal Fistula; Death on the Eighteenth Day.* — Mrs. H., a Swede, forty-three years old, had suffered more or less pelvic pain for fifteen years, and during the last four had been confined to her bed many times on account of severe attacks. Pregnancy had never existed. She first noticed an increase of size five years before I saw her, in January, 1874, at which time the umbilical girth was thirty-two inches. The tumor, occupying the pubic region, was about the size of an ostrich's egg and somewhat movable. On February 1st I punctured the cyst through the abdominal wall with a fine perforated needle, and drew off about twelve ounces of clear yellow fluid, specific gravity 1020, alkaline, highly albuminous, and containing plates of cholesterine. This tapping was followed by peritonitis and suppuration within the cyst. After waiting four weeks for the peritoneal inflammation to sub-

side, it became imperative to perform ovariotomy at once as a last resort. Mrs. H. all this time had a high temperature and pulse, great pain and tenderness, no appetite, and no rest nor comfort, except when under the influence of opium. On February 18, 1874, the operation was performed at the patient's house with the assistance of Drs. William Ingalls, C. D. Homans, Hayden, and Mr. William Appleton. The length of the incision was four inches; adhesions were universal; some recent from the existing peritonitis, others old, firm, and inseparable, extending to the left brim of the pelvis, to the lower lumbar vertebræ and promontory of the sacrum, and to the sigmoid flexure of the rectum. The entire cyst could not be removed, and as the pelvic adhesions were so intimate as not to admit of dissection, there was practically no pedicle. A clamp was applied as near the base of the cyst as possible. At this stage of the operation an unfortunate accident happened. I twisted off the head of the screw bolt of the clamp, while tightening it with pliers, and being unwilling to leave the clamp in this state, as I could neither tighten nor loosen it, I passed a double ligature beneath the clamp, tied the mass in two halves, and then cut away the clamp. To the manipulation at this time and the friability of the inflamed bowel I attribute the subsequent fæcal fistula.

The main cyst contained thick, offensive pus mixed with masses of lymph; a smaller cyst contained clear fluid. The cyst wall was about one quarter of an inch thick, red and inflamed inside and out; the lining membrane was of a deep cranberry color, and masses of offensive lymph were scattered over its surface. There was very little abdominal tenderness after the operation, but much pain, and on the fourth day the discharge from the wound was evidently fæcal. The abdominal cavity was thoroughly washed out several times a day with a warm weak solution of chlorinated soda. The pulse ranged from 68 to 80 until a day or two before her death, which took place on March 8th. The autopsy showed recent adhesions, with here and there collections of pus among the folds of intestine and in the cellular tissue between the peritoneum and the vertebral column. There were also old adhesions between the left lobe of the liver and the stomach. The perforation was a round hole about two lines in diameter, at a point about six inches from the anus. The ligature had been firmly applied at a point one and a half inches from the uterus.

Case V. — *Unilocular Cyst of Left Ovary; Death on the Tenth Day; Cause Unknown.* — Mrs. D., aged thirty-six, I saw at Peabody in consultation with Dr. George S. Osborne. At my first visit it seemed probable that pregnancy existed, and vomiting was persistent and almost incessant. She was the mother of one child five years old, and had had two abortions. Her health was usually vigorous. Measures were taken to relieve the uterus of its contents, and on the 16th of March a par-

tially decomposed placenta came away; there was no trace of a fœtus seen. The mother made a rapid and perfect recovery. The case was a most favorable one for operation; the cyst was unilocular, without adhesions, and the patient calm and hopeful. The tumor was first noticed in May, 1874, and had increased so much that the umbilical girth was thirty-seven and one half inches on March 1, 1875. Some time after my first visit the patient had removed to a high, spacious house, where she had a large room looking towards the south, and well ventilated. Every precaution to guard against contagion or infection was taken, and Dr. Osborne went so far as to have the cellar, in which potatoes had been stored during the winter, thoroughly cleansed and whitewashed.

The operation was performed on the 18th of May, 1875. Drs. George S. Osborne (who shared with me the after-treatment), Thomas Dwight, Jr., and O. B. Shreve assisted. We were fortunate in having Sister Frances, from St. Margaret's Home, as nurse. There were no adhesions; the cyst and contents weighed about fifteen pounds; the only bleeding was from the needle holes. The pedicle was extremely broad, but was easily clamped. The pulse was 64 after the patient had been removed to bed. She vomited once while coming out of the ether. At evening the temperature was $98\frac{3}{4}°$; pulse 64; and there was some pain in the back; one sixth of a grain of morphia subcutaneously. A slight flowing from the uterus came on during the night, and the pulse rose to 76. For food she took nothing but ice. A subcutaneous injection of morphia was given whenever necessary. On the 20th she took some boiled milk. Temperature $99\frac{4}{5}°$. Pulse 95. Pain less severe. Passed urine naturally. On the 21st the clamp was removed; the wound was united by first intention, and there was no abdominal tenderness nor distention. Pulse 96. Temperature $99\frac{3}{5}°$. She talked brightly, and said she felt nicely. On May 23d she could move herself about in the bed without aid, and relished food. Tongue slightly furred. Pulse 90. Temperature $99\frac{1}{4}°$. Stump of pedicle rather offensive.

May 24th. Pulse 108. Temperature $100\frac{3}{5}°$. Urine more scanty and high colored. No fluid could be detected in Douglass's space, nor was there the least abdominal tenderness. In the evening she was restless.

May 25th. Vomited a greenish sour fluid for the first time since coming out of the ether. She complained of no pain, but evidently felt weaker than on the day before. At noon an enema containing oil of peppermint was administered, and a large natural fæcal discharge followed without discomfort. She took small quantities of brandy, champagne, mutton broth, and gruel. At evening the temperature was $103\frac{3}{5}°$. Pulse 140. Face flushed. No pain nor chill. On the 26th her countenance was anxious, and there was now delirium. The pedicle looked

clean and healthy. On the 27th she was restless and indifferent, but when roused would take a little brandy. Pulse 130. Temperature 103°. Uterine flow continued, not at all offensive; no tenderness nor distention anywhere detected. It was evident that the case, which had gone on so well for five days, was to terminate fatally. There was apparently no peritonitis nor pyæmia, but there was probably blood-poisoning. Without quoting too freely from the record, I will simply say that the delirium increased, that the skin continued natural to the touch, and that careful examinations by the vagina and rectum revealed no induration nor collection of fluid.

At ten P. M. on the 27th severe hæmorrhage from the nose came on, the face being much flushed and the hands cold; this bleeding soon stopped, and towards morning the face became cooler.

Death occurred at eight o'clock, May 28th. No autopsy was allowed, and perhaps it is useless to speculate as to the cause of death. I think, however, that it must have been septicæmia, but without chill or peritonitis. I have not mentioned all that was done in the way of treatment, internally and externally, nor does it seem necessary; the case has, however, been sufficiently described to be useful in the history and study of this operation. In my next case I shall, if possible, use the actual cautery in securing the pedicle.

A CASE OF SUPPOSED OVARIAN DISEASE.[1]

BY F. B. A. LEWIS, M. D. (HARV.), OF WATERTOWN, N. Y.

Mrs. E——, aged twenty-six, robust and finely developed, married in January, 1870, had a healthy child one year after, and a miscarriage at the second or third month during the second year succeeding. I saw her first in August, 1873, on account of severe endometritis, which had resisted all ordinary treatment. Owing to energetic measures and to a naturally good constitution, she recovered, and was discharged well in October following. She remained in health until August, 1874, when she presented herself at my office, saying she feared something was wrong with her, as she had disagreeable sensations in the lower part of the abdomen, with some leucorrhœal discharge. While I was examining the uterus bimanually, the fingers detected a tumor in the left inguinal region, in size about that of an ordinary orange, indistinctly movable, firm, and not tender; the patient had been unaware of its presence. The uterus was in a normal condition.

A month later the patient returned, and on examination the tumor

[1] Read before the Jefferson County (N. Y.) Medical Society, October 5, 1875.

was found to be considerably increased in size, but without pain or tenderness; it was still firm, and somewhat less movable. The general condition remained satisfactory. A consultation was advised, but the patient was lost sight of until several weeks afterward, when, during my absence, another physician was called, on account of trouble in micturition, with considerable pain. He stated that the uterus was found pressed downward upon the neck of the bladder, and on pushing it high up the pain was instantly relieved, and he did nothing more. From this time the tumor steadily but rapidly increased in size, extending over into the right side and filling the entire abdomen. Meanwhile it developed renewed trouble in micturition, and caused constipation and dyspnœa. There was no pain in the tumor itself, nor failure of the general health, until the latter part of the year 1874; at this time the measurement around the body at the most prominent point was thirty-eight inches, taken while the patient was lying down. The skin of the abdomen had become quite thin; distended veins in great numbers coursed over the surface; the dullness on percussion extended over the entire abdomen; the sense of fluctuation was indistinct and indefinable. No change of outline resulted from altered posture. The skin was movable over the tumor in places only. The entire mass was quite firmly fixed in the pelvis. The uterus was strongly anteverted, with the cervix flattened against the pubes; the sound entered two and three fourths inches, and moved the uterus, which was small, quite freely, considering the pressure above. There was fullness with indistinct fluctuation high up in posterior vaginal cul-de-sac, and uniform fullness was felt in rectum. Menstruation, which had been normal, now became irregular and painful. The patient emaciated rapidly, and was troubled at times by œdema of the feet and ankles; this latter condition disappeared after bandaging and the use of stimulating lotions. The more general discomforts were hiccough, the passage of flatus through the compressed intestine, and the sensation of weight in the abdomen.

The opinion had been early given that the case was one of ovarian cyst, probably multilocular. This diagnosis was confirmed by a surgeon as well qualified as any in this portion of the State, one who a few years ago, in opposition to the diagnosis of several other physicians, had confirmed my opinion in a similar case, in which the tumor after its removal was found to be a multilocular ovarian cyst of large size. In the present instance an operation was advised, and preparations were made for it, although the patient was able to move about the house at times. In the early part of January, 1875, her general health failed more decidedly, and she had four or five hysterical convulsions each day. At this time another surgeon was called, who, without disputing the diagnosis, advised a delay in operating until the general condition might be improved.

The remarkable points of this case are now to be reported. Within ten days after the last consultation the patient's condition became wholly altered. Leaving her one day in a state of comparative comfort, I found her the next affected with severe convulsive attacks, chills, with fever and sweating, pain in the tumor, pinched countenance, and small, quick pulse. By the 10th of January the tumor had entirely changed; it was softer, and fluctuation was easily made out; the abdomen was considerably smaller; the veins, previously so prominent, became emptied, and the skin could be easily taken up in folds. On January 11th an aspirator-needle was inserted midway between the umbilicus and the pubes, and a pint of odorless pus was drawn; the needle then became obstructed, and, the patient being much relieved, nothing more was done until the 19th, when, convulsions and the other symptoms recurring, a trocar and canula were introduced, and several pints of pus, mixed with gelatinous matter and sloughy-looking strings, were evacuated. A long probe passed through the canula could be swept about or passed in any direction, to the extent of eight or nine inches. It was designed at the time of operating to leave the canula for the purpose of drainage; but when the sac appeared empty the instrument was withdrawn, and the orifice was closed with adhesive strips. At this time the case was considered to be a desperate one, but the patient improved rapidly, the convulsions were arrested, the sac never refilled, the extent of dullness became less each week, and at this date (October, 1875) the patient is a robust person, full of life and vigor.

In conclusion, it may be remarked that among the reports of cases I have been unable to find one like the foregoing. Ovarian cysts appear not to suppurate very often, especially when they have reached considerable size. Even when suppuration occurs, the progress of the case is unlike that here noted. Possibly it may be said there was an error in the diagnosis, but certainly the history is not that of any other disease affecting the pelvic region.

RECENT PROGRESS IN PATHOLOGY AND PATHOLOGICAL ANATOMY.[1]

BY R. H. FITZ, M. D.

PATHOLOGICAL ANATOMY.

Aneurisms. — Professor Köster[2] spoke to the Lower Rhine Society, at Bonn, with reference to the origin of aneurisms. The commonly accepted idea that these are due to chronic endarteritis and its meta-

[1] Concluded from page 473.

[2] Berliner klinische Wochenschrift, 1875, xxiii. 322.

morphoses, the so-called atheromatous condition, was objected to on the following grounds: (1.) Aneurisms may occur on otherwise healthy arteries. (2.) The atheromatous disease is exceedingly common in Germany, but aneurisms are rare. (3.) The inner coat of small arteries is too thin to offer any special opposition to the blood pressure, and were it diseased or destroyed there is no reason for a protrusion of the wall of the artery. Finally, (4) aneurisms are most common in middle life, while the atheromatous condition is a disease of old age. Köster examined large and small depressions in the walls of the aorta and of other arteries. Like Helmstedter, he found numerous light spots in the middle of the muscular coat, which were regarded as inflamed spots with a growth of connective tissue such as occurs in cirrhosis of the liver. They contained blood-vessels and were connected with the external coat by a bridge, in which were arterial and venous vessels. He thought that the inflammation of the vessel-wall began in the outer coat, around the nutrient vessels; thence extended into the muscular coat and became diffused here, corresponding with the capillary distribution of the vaso vasorum. The inflammatory changes may reach the inner coat when the nutrient vessels extend into the latter, as is sometimes the case. Under such conditions the intima is often thickened. We have thus a spotted, chronic inflammation of the middle coat; its elastic fibres and muscle-cells are destroyed, and eventually the inner and thickened outer coat become united into a single vascular membrane of homogeneous histological structure. Such parts become protruded and represent the aneurism.

Congenital Syphilis. — Of late years, very valuable contributions to the pathological anatomy of this disease have been made, some of which suggest points of marked interest to the practitioner, with reference both to diagnosis and to treatment. Enlargement of the spleen had occasionally been observed, but Bärensprung [1] called more direct attention to this condition of the organ. He attributed the change to a disturbance in the portal circulation in consequence of the well-recognized changes in the liver. Gee [2] then published a paper giving the result of his observations relating to the enlargement of the spleen in hereditary syphilis. He believed that in about one fourth of all cases of hereditary syphilis the spleen was enlarged, and that the degree of its enlargement might be regarded as a means of measuring the syphilitic cachexia. Most cases in which there was a decided enlargement terminated fatally.

Numerous observers since then have noted the splenic enlargement, without, however, attaching the same weight to it. Fränkel [3] again

[1] Die hereditäre Syphilis, 1864, page 75.

[2] British Medical Journal, 1867, page 435; from Virchow and Hirsch's Jahresbericht for 1867, ii. 555.

[3] Ueber Placentar Syphilis. 1873.

calls attention to the subject, and Birch-Hirschfeld[1] has made it the subject of special study in the light of other recent investigations. This observer based his conclusions upon the examination of thirty-two syphilitic infants. He found, so constantly, considerable increase in the weight of the spleen in these cases, that he stated that one could scarcely err in expecting to find other evidences of syphilis where the marked alteration of the spleen was present. The microscopical examination of these spleens gave no appearances differing from those occurring under normal circumstances. When the fœtus was born in a macerated condition the spleens were very soft and of a dirty violet color on section. If the child was still-born, or if it died soon after birth, the spleen was of increased density, of a dark brownish color, presenting the indurated form; or again, the organ might be soft and pale.

Unquestionably of far greater importance is the discovery by Wegner[2] of certain changes in the cylindrical bones found at the junction of the shaft with the epiphysis, and at the border between the bony and cartilaginous portions of the ribs. He has described three stages in the process, to which he has applied the term syphilitic osteochondritis, and he states that the one or the other is of almost constant appearance in cases of congenital syphilis.

In the first stage, instead of the normal, sharply defined, horizontal or curved line on longitudinal section, indicating the direct transition of hyaline cartilage into bone, there is found a layer two millimetres wide, with an irregular border on both sides. This layer or zone is soft and brittle, of a glistening white or reddish-white color, and of a denser, more homogeneous appearance than the neighboring reddish bony cancellated structure. These appearances result from a proliferation of the cartilage cells and a delay in the conversion of calcified cartilage into bone.

In the second stage the intervening layer is twice as wide as that above mentioned; its border towards the cartilage is extremely irregular, presenting numerous projections varying in length, breadth, and contour, sometimes connected by transverse lines so that islets of cartilage seem to be inclosed. A similar condition exists towards the bone, though less marked. The layer of cartilage bordering on the bone is soft, of a bluish transparent appearance, as in rickets. The microscopic changes are a greater proliferation of cells, an abundant development of vessels, towards the bone imbedded in a fibrous tissue, the intervening cartilage thickened and condensed, containing osteoid tissue, even streaks of true bone; towards the spongy portion of the diaphysis, calcified cartilage is present, indicating a delay in its transition into bone tissue.

[1] Archiv der Heilkunde, 1875, xvi. 173.
[2] Virchow's Archiv, 1870, page 305.

In the third stage, the articular ends of the bones and the ribs at the junction of bone and cartilage become enlarged. The adjoining parts of the cartilage are blue, transparent, moist, and project on section. Bordering upon this is an opaque, grayish-yellow layer, dense and homogeneous, from two to four millimetres in width, which is limited above and below by an irregular, jagged, and rounded line.

Though this layer feels hard, it is brittle and easily crumbled. Below it is an irregularly bounded layer, grayish-red or grayish-yellow, soft, at times almost fluid, which is gradually lost in the spongy bone tissue. In consequence, the union between the diaphysis and the cartilaginous epiphysis is loosened, the parts are movable with a slight degree of crepitation, and may even fall apart if the periosteum is cut through. The adjoining cancellated tissue of the shaft contains a gray or reddish-gray marrow resembling granulation-tissue. Wegner has noted the following relative frequency of the process in the various bones. It is most often found in the lower end of the femur; then the lower end of the bones of the leg and fore-arm, the upper end of the tibia, the upper end of the femur and fibula; then the upper end of the humerus, that of the radius and ulna, and rarest of all in the lower end of the humerus.

Waldeyer and Köbner[1] corroborate this discovery, and call attention to the fact that the gross appearances may be extremely slight, while with the microscope characteristic anomalies are found. They mention the incomplete formation of the osteo-blasts which form an almost continuous epithelial-like layer in normal ossification. They urge that as this disease is of constant intra-uterine origin, therefore its existence enables one to discriminate between cases of hereditary and acquired infantile syphilis. Further, it is absolutely diagnostic where the fœtus is a macerated one, in which often visceral changes cannot be found. This consideration may be of value in enabling one to recognize aright obscure diseased phenomena on the part of the parents. Another inference, at present of relative weight only, owing to the limited number of exact observations, is that the change seems to be independent of the treatment of the mother previous to or during pregnancy.

Birch-Hirschfeld[2] confirms the constancy of the occurrence of this syphilitic osteochondritis, though he cannot consider that its absence excludes the possibility of the presence of syphilis. To the descriptive appearances of Wegner he adds that when the epiphysis is separated from the shaft the line of fracture presents irregular bits, is jagged; while when the normal bone is treated in the same manner, the cartilage is separated smoothly from the bone.

Oedmansson and Winckel have called attention to the existence of a stenosis of the umbilical vein within the cord of certain macerated

[1] Virchow's Archiv, 1872, lv. 367.
[2] Loc. cit.

fœtuses, the death of the fœtus being attributed to this condition. The former observer considered the alteration in question as belonging to the atheromatous process. Birch-Hirschfeld objects to this conclusion on the ground of an examination he had made where a very decided stenosis of the umbilical vein was found. He regards the condition analogous to that occurring in arteries as the result of syphilis, described by Heubner. At the same time the change is rarely found in macerated fœtuses in which marked syphilitic changes in the bones are present. Further, it was found on several occasions in macerated fœtuses where no alteration of the epiphyses was present. If this affection of the vessels, therefore, is to be regarded as a result of syphilis, the osteochondritis cannot be regarded as an absolutely constant sign of the disease.

Birch-Hirschfeld describes changes in the pancreas which he frequently found in cases of congenital syphilis. Similar alterations had previously been observed, though no special weight had been attached to the same. He examined the pancreas from the bodies of seventy-three newly-born and still-born infants. In twenty-three of these cases the syphilitic osteochondritis was present, and in thirteen of these the pancreas was found diseased, it being normal in the non-syphilitic children. Of the twenty-three cases ten were macerated fœtuses, and of these two only had an abnormal pancreas. Of the remaining thirteen infants, born alive or dying during birth, eleven presented a diseased pancreas. In the more advanced degrees the organ was decidedly enlarged in all dimensions; its weight may be doubled, the tissue is firm, glistening white on section, the glandular structure indistinct to the naked eye. The microscope showed a high degree of development of the interstitial tissue. This was observed more particularly between the larger lobules of the gland, though it was sometimes found between the individual pouches of the lobule. The latter were compressed, their epithelium atrophied. The vessels in the interstitial tissue were sparse, their walls thickened. This extreme degree was present in seven cases. In six the alteration was less evident to the naked eye, though the organ was enlarged, the lobules somewhat indistinct, the density increased, and the color pale. The interstitial tissue-changes were less marked. The changes in the microscopical appearances, though less in degree than before, were still distinctly different from those of the normal pancreas. The head of the pancreas presented more marked alterations than the tail. This interstitial degeneration is analagous to the interstitial changes occurring in the liver. It seems probable that it develops late in intra-uterine life, as the macerated fœtuses rarely presented it. The most extreme instance was found in a child who had died five months after birth. The question naturally arose whether the frequent cachexia of children born with syphilis is

not in part due to the disturbance of digestion probably resulting from this change.

Embolism of the Superior Mesenteric Artery. — Litten [1] endeavored to ascertain by experiments on dogs the cause of hæmorrhagic infarction in cases where an embolus had become fixed in the mesenteric artery, since this vessel is not a terminal artery, in the sense of Cohnheim.[2] A ligature was placed around the trunk of the artery, and the animals died within forty-eight hours, with great prostration, loss of appetite, occasional vomiting, offensive, bloody, tar-like dejections, associated with a falling of temperature and with tympanites. Putrefaction was rapid, and in certain cases a purulent and hæmorrhagic peritonitis was present. The distended coils of the small intestine from the lower part of the jejunum and the upper part of the large intestine were of a dark, reddish-black color, lustreless and œdematous. The mucous membrane was of the same color, and covered with a bloody secretion. The serous coat presented occasional vesicular elevations. Extensive hæmorrhages were found between the coats of the intestine. Peyer's patches were swollen and hæmorrhagic. The mesentery corresponding to the region affected was opaque, dotted with numerous hæmorrhages. The mesenteric glands were swollen, at times thoroughly infiltrated with blood. The mesenteric veins were distended with fluid blood. These appearances represent the combination to which the term hæmorrhagic infarction is applied. Ligature of the trunk beyond the uppermost branches produced similar changes, though not so marked in the upper part of the jejunum. The ligature of single branches produced no effect, but when a group of arteries proceeding to a limited portion of intestine was tied a corresponding limited infarction occurred. The circulation thus cut off did not return, and the conclusion was drawn that the function of this artery is that of a terminal one. This, however, is in direct opposition to the well-known anatomical communication between the superior mesenteric, the pancreatico-duodenalis, and the inferior mesenteric arteries.

Assuming that the cessation of the blood-current must be due to an alteration of the blood-pressure or to a change in the resistance of the vessel-wall, he learned that physiologically the resistance could not be strongly diminished nor the blood-pressure decidedly increased. By means of a forced injection, however, he was able to push the fluid injected into the region of the obstructed artery, but the animal died before this end was accomplished. It therefore resulted that to reëstablish quickly the circulation in the obstructed region such a pressure is necessary as never occurs under ordinary conditions; hence the function of the artery is that of a terminal one.

[1] Virchow's Archiv, 1875, lxiii. 289.

[2] Vide the JOURNAL, October 24, 1872, page 281

There is thus no essential distinction between the superior mesenteric artery and the other large arterial trunks, excepting the anatomical terminal arteries. The practical point is the period at which the collateral circulation is established, and the length of time that the part can get along without a supply of fresh blood; and these vary considerably with the different arteries.

The writer then presents a series of sixteen recorded cases of embolism of the superior mesenteric artery. A comparison of these with the results of experiment shows a very close resemblance, there being at the most modifications in the time of the occurrence of destructive processes in the intestine.

Experiments made upon the cœliac and the inferior mesenteric arteries showed in no case extensive lesion or necrosis. The recorded cases of embolism of these arteries furnish a similar result; hence their branches are not to be regarded as terminal, either functionally or anatomically.

Cirrhosis of the Liver in Children. — Two such cases are reported by Dr. Cazalis,[1] the patients being girls aged seven and nine years respectively. They entered the hospital with ascites, slight œdema of the legs, and considerable dilatation of the abdominal veins. Both children had been ailing for some time, though the abdominal swelling had been noticed for a few weeks only.

Albuminuria was present in one case, slight jaundice in the other; in neither was there any heart-disease. During treatment the children suffered from attacks of acute peritonitis; as the fever subsided the ascites increased rapidly, and tapping was finally resorted to. The one child soon died of pneumonia, erysipelas about the puncture, and gangrene of the vulva. The other died from subsequent peritonitis.

The livers were found extremely atrophied, that of the elder girl scarcely of the size of the fist of an adult; both were finely lobulated, resembling on section an ordinary gin-drinker's liver. The spleen was enlarged in both cases, that of the elder child very much so.

But little information could be obtained concerning the previous history of the younger child. Well in 1870, she suffered from cold and hunger during the German siege of Paris. The parents of the elder girl were temperate, and presented no evidence of syphilis; their child had measles at the age of three, and often complained of her stomach since. During the three years previous to her death she had frequent nose-bleed. When seven years old she had a mucous (typhoid?) fever; from this time her belly began to enlarge. She suffered from indigestion, diarrhœa, and occasional slight tenesmus. Her abdomen became larger during an attack of jaundice lasting two months. The girl had never had intermittent fever. She had lived most of her life in a damp basement.

1 Progrès Médical, March 20, 1875; from Medical Times and Gazette, May, 1875, page 472.

Dr. Cazalis considered that cold and damp might be deemed an important element in the development of cirrhosis in children.

The cases seem to show that this affection may occur in children, independently of heart-disease, syphilis, or the abuse of stimulants.

Exfoliation of the Mucous Membrane of the Bladder. — Mr. Bell[1] showed the specimen to the Medico-Chirurgical Society of Edinburgh. Three months previous the patient had been delivered of a still-born child; about a month afterwards Mr. Bell was consulted concerning incontinence of urine. At the mouth of the urethra, which was largely dilated, there was detected what seemed to be a tumor. The fingers could be passed between the bladder and this in all directions. The mass was finally detached and withdrawn. It was found to be the whole mucous membrane of the bladder, coated with phosphates. The patient made a good recovery, though there is still a little incontinence of urine if she walks about much.

PAGET'S CLINICAL LECTURES AND ESSAYS.[2]

Everything which emanates from Sir James Paget's pen is sure to attract attention. The demands of an immense consulting and fashionable London practice having latterly diverted him from pathological pursuits, his occasional lectures nowadays deal chiefly with practical subjects. Sagacious clinical observation, rather than study and research in the laboratory and among books, characterizes this admirable volume, which reflects almost exclusively the mind of its author. Mature practitioners will perhaps appreciate the clear tone of its ring better than beginners, but both will derive an excellent lesson from the caution, bred of experience, which prominently reveals itself on almost every page, and especially will it prove instructive to those who are always eager to "do something," in or out of season.

Its list of contents is a striking one. The fifty pages on Strangulated Hernia are full of practical wisdom. The lecture on Sexual Hypochondriasis is a judicious discussion of this difficult question; and the Notes for the Study of some Constitutional Diseases an excellent specimen of the author's contemplative writing. The Calamities of Surgery, Stammering with other Organs than those of Speech, Nervous Mimicry, Cases that Bone-Setters Cure, are other titles which indicate the originality of the varied subjects.

Mr. Howard Marsh, who, Sir James says in his preface, "has done what he could to amend the chief of his defects," in a brief appendix and scattered foot-notes adds a certain amount of references and cases in support of the author's views. Most of the lectures and essays are reprints; but the evidences of revision and addition are numerous, and nothing suggests the idea of an attempt at mere "book-making." It is a valuable contribution to permanent medical literature.

[1] Edinburgh Medical Journal, 1875, ccxxxviii. 935.

[2] *Clinical Lectures and Essays.* By Sir James Paget, Bart. Edited by Howard Marsh, F. R. C. S. New York: D. Appleton & Co. 1875.

HEATH'S MINOR SURGERY.[1]

THIS little book appeared originally in 1861, and was specially adapted by the author to the wants of the "dressers" and "house-surgeons" of the London hospitals. The work performed by these individuals is such as every medical student is desirous to learn and every young practitioner ought to be familiar with. In writing, therefore, with a well-defined object in view the author has succeeded in avoiding many imperfections which are common to books of this kind. The range of subjects is not too great, and each one is treated in a concise manner, but clearly and full enough to be of practical value. Descriptions of antiquated methods of treatment, apparatus, and bandaging have been carefully avoided, while the writer has shown his appreciation of what a student wants to know by introducing quite a variety of topics not strictly belonging to such a book, which may also be said to contain in addition to the usual instruction a great deal of excellent advice. There are a few subjects, indeed, which we hardly think necessary, such as the conduct of the house-surgeon or pupil in the operating theatre; there are, on the other hand, useful chapters on case-taking and on post-mortem examinations, by reading which students would certainly be benefited. The wood-cuts are fair and not too numerous, and although they are rather in accordance with the methods of English than of American surgeons, the changes that could be made are of no great importance. The fact that Mr. Heath's little book has reached a fifth edition, and that the last one has been carefully revised, is, we think, a sufficient guarantee of its value.

SMITHSONIAN REPORT, 1874.

THE Smithsonian Institution, as appears from its last report, is steadily pursuing its gigantic labors. Gigantic they may fairly be termed when we consider the wideness of their range and the efficiency with which they are executed. The museum at Washington has been enriched by many valuable additions during 1874. Among the more important contributions to the department of mammals we may mention the nylghau, the manatus, and the sun-bear presented by P. T. Barnum. A specimen of the sea-lion of Patagonia has been received from Dr. Burmeister, of Buenos Ayres. Henry W. Elliott has procured a series of skins and skeletons of the fur-seals. Doctor Gabb has furnished complete collections of nearly all the known mammals of Costa Rica, in great number. A series of the seals of Newfoundland was received from Rev. M. Harvey; and Captain Scammon has contributed additions to the series of cetaceans of the Pacific coast, especially that of California. The fish collection is a special feature of the institution. Every summer Professor Baird, with able assistants, devotes himself to perfecting the collection, and various agents are constantly on the lookout for rare and curious spec-

[1] *A Manual of Minor Surgery and Bandaging.* By CHRISTOPHER HEATH, F. R. C. S. Fifth Edition. Philadelphia: Lindsay and Blakiston. 1875.

imens. According to the report, by means of the various fresh fishes thus obtained, the series of casts of the food-fishes of the United States, commenced a few years ago, has been greatly extended during the past season; this now numbering over three hundred specimens, painted carefully from nature, and representing fishes and cetaceans, some of them of nearly a thousand pounds' weight. This collection of casts is said to be unique in this country, and to be only represented on a smaller scale by that of Mr. Frank Buckland, in London, and that of the natural history museum of Trinity College, Dublin.

One of the greatest favors that the Smithsonian Institution confers on the community is the carrying on of the system of exchanges of publications between the leading societies of the Old World and those in this country. Expressage must be paid in this country to and from Washington as the case may be, but after that, owing to the liberality of the principal transportation companies, the packages are sent to and received from the limits of the civilized world free of expense, and pass through all custom-houses free of duties and unopened. We quote from the report to show the extent of this interchange.

NUMBER OF FOREIGN CORRESPONDING INSTITUTIONS.

Sweden	20	Belgium	110
Norway	24	France	274
Iceland	2	Italy	169
Denmark	27	Portugal	20
Russia	160	Spain	12
Holland	65	Great Britain and Ireland	357
Germany	622	South America	40
Greece	7	West Indies	7
Turkey	11	Mexico	10
Africa	23	Central America	1
Asia	42	British America	27
Australia	27	General	5
New Zealand	13		
Polynesia	2	Total	2146
Switzerland	69		

"During the past year 4326 packages, each containing several articles, have been received from abroad for distribution to institutions and individuals in this country.

"One hundred and forty-one boxes, averaging seven cubic feet each, with a total weight of 29,600 pounds, were sent abroad by the institution, during the year, namely, to Germany, 40; England, 30; Sweden, 5; Norway, 3; Denmark and Iceland, 4; France, 11; Russia, 7; Holland, 5; Belgium, 5; Australia, 11; Italy, 3; Cuba, 2; Brazil, 3; Liberia, 1; Egypt, 1; Canada, 10.

"The total number of separate parcels contained in these boxes was about 10,000."

The report contains the account of some explorations and surveys in the territory of the United States, and includes also a number of scientific papers. Among these are many translations of papers, eulogies especially, read at foreign societies, of which we own we cannot see the propriety of the reproduction. There are also a number of observations on American antiquities of various degrees of merit; many containing much that is interesting, but few much that is really new.

MORTALITY FROM PHTHISIS.

Dr. Gleitsmann, of Baltimore, has prepared and published an elaborate essay concerning the statistics of mortality from pulmonary phthisis in the United States and in Europe.[1] His little book is rather dull reading for the average physician, for it embraces a series of tables which serve as a text for the author's comments; compositions of this nature possess very little fascination to any except the plodding student of vital statistics. The discriminating reader, whether he be fascinated or repelled by the array of figures here presented, cannot but observe that the writer has used his data legitimately, to point to certain conclusions, and that he has not abused them to bolster any chimerical notions conceived beforehand.

The author has analyzed the mortality statistics of sixty-five American cities for the year 1873, and has compared them with the returns of the Registrar-General of England with reference to the deaths from consumption. He has also placed the records of twenty-five life insurance companies under contribution for facts relating to the mortality from phthisis. Oldendorff's tables have likewise been appealed to for the sake of a comparison between American and German statistics. Painstaking as all this labor has been, we cannot but regard its results as only measurably valuable, inasmuch as it embraces too short a period (a single year), and gives figures relating to population and mortality which are partial and approximative. To be really and permanently useful, such a work should embrace many years of time and great extent of territory. So far as it goes, however, Dr. Gleitsmann's book confirms the conclusions already reached by other laborers in the field of vital statistics, namely, that the deaths from consumption comprise about one eighth of the whole mortality: that most of the deaths occur in the spring: that the female decedents exceed the male; and that the period of life between the ages of twenty and thirty years suffers most severely.

COCHITUATE WATER.

The unpleasant odor and taste of the water supplied to the citizens of Boston have been the cause of numerous complaints, and naturally of much anxiety as to the sanitary effects likely to be produced by the impurities which give rise to these disagreeable features.

As to the source of these impurities there are several theories. The first and most probable is the decomposition of the vegetation upon a large extent of the bottom of Lake Cochituate. This vegetation has been allowed to spring up by the exposure to the air of two hundred acres or more in the southern division of the lake, which always takes place in very dry seasons.

[1] *Statistics of Mortality from Pulmonary Phthisis in the United States and in Europe.* By William Gleitsmann, M. D. Baltimore: Turnbull Brothers. 1875.

The vegetable growth, when covered with water of sufficient depth, dies, and in decaying imparts to the water a large quantity of organic matter which usually gives it a certain amount of color, odor, and taste, disagreeable but not necessarily noxious.

The same condition of the Boston water has been noticed after similar extended droughts, such as those of 1854 and 1872. In 1872 many referred the unpleasant taste to the connection made between Farm Pond and Lake Cochituate, and the consequent introduction of the Sudbury River water, but it is far more probable that it was caused by the previous exposure of about two hundred acres of the bottom of the lake, as at the present time.

Another explanation is that the water which has been lying at the bottom of the lake during the summer, and which is "said to be almost in a putrid state," has been raised on account of the cooling of the surface water, and is now being distributed. Granting this to be the fact (which, however, we by no means admit), the same condition of the water would be noticed every autumn, which is not the case.

Still another theory is that the Brookline reservoir is in a very filthy condition. Were this the cause of the difficulty, the disagreeable taste would be perceived only in those districts which are supplied with water from this reservoir. We learn, however, that the complaint is general and not limited to any particular portions of the city.

Too much care cannot be taken to insure a pure and abundant supply of drinking-water for cities, and we are pleased to be able to state that all possible means are being taken to secure this object. As soon as the report of the medical commission upon the sanitary qualities of various sources of water supply for Boston was made, measures were immediately taken to utilize the water of Sudbury River in accordance with the recommendation of that commission. As, unfortunately, the completion of the plans will require several years, the connection between Farm Pond and Lake Cochituate has in the mean time been reopened, to prevent a water famine. Probably, therefore, since the city has obtained complete control of the Sudbury River from the legislature, and has now decided permanently to use its water, there will never be a repetition of the present state of affairs, the falling of Lake Cochituate to such an extent as to expose a large area of the bottom to the action of the atmosphere being readily prevented by the temporary introduction of the Sudbury River water.

THE CORRECT TABLE OF EXERCISES AT THE HARVARD MEDICAL SCHOOL FOR THE FIRST TERM OF 1875–76.

OUR readers may remember that we criticised, a short time ago, a table that appeared in the New York *Medical Record*, purporting to give the order of exercises at some of the leading medical schools for the present year, inasmuch as the order at Harvard had not then been determined. The editor of the *Record* replied that the table had been received from the secretary, and implied that we could not show any errors in it.

The table of exercises at Harvard which the *Record* published was that of last year, and it was undoubtedly true that we could not then show how inaccurate it might be, as the following correct table has only just appeared.

FIRST YEAR — FIRST TERM.

	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.	SATURDAY.
9	Histology.	Laboratory.	Laboratory.	Histology.	Laboratory.	Laboratory.
10	Histology.	Laboratory.	Laboratory.	Histology.	Chemistry. R.	Physiology. R.
11	Physiology. L.	Physiology. L.	Chemistry. L.	Laboratory.	Physiology. L.	
12	Laboratory.	Laboratory.	Laboratory.	Laboratory.	Laboratory.	Museum.
1	Last 11 weeks, Anatomy. L.	Anatomy. L.	Anatomy. R. 1st 8 weeks Anat. L. last 11 weeks.	Anatomy. L.	Anatomy. R.	
5	Prac. Anatomy. After Jan. 1.	Prac. Anatomy. After Jan. 1.	Prac. Anatomy. After Jan. 1.	Prac. Anatomy. After Jan. 1.	Prac. Anatomy. After Jan. 1.	

SECOND YEAR — FIRST TERM.

	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.	SATURDAY.
9	M. G. H. Med. Vis.	B. C. H. Med. Vis. Bost. Disp.	Clin. Medicine. L.	M. G. H. Med. Vis.	Bost. Disp.	Chemistry. R.
10	Aus. & Per.	Clin. Surg. L. After Dec. 1. Aus. & Per.	Aus. & Per.	Aus. &. Per.	B. C. H. Surg. Vis. Aus. & Per.	M. G. H. Surg. Vis. Aus. & Per.
11	Clin. Surgery. L.			Materia Medica.	B. C. H. Op.	M. G. H. Op.
12	Path. Anat. L.	Chemistry. L.		Materia Medica.		Museum.
3	Path. Microscopy.	Path. Anat. R.	Path. Anat. L.	Path. Microscopy.	Path. Anat. R.	
4			Surg. R.	Clinical Conf.		
5	Prac. Anatomy. Till Jan. 1.	Prac. Anatomy. Till Jan. 1.	Prac. Anatomy. Till Jan. 1.	Prac. Anatomy. Till Jan. 1.	Prac. Anatomy. Till Jan. 1.	

THIRD YEAR—FIRST TERM.

	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.	Saturday
9	M. G. H. Medical Visit Eye & Ear Inf.	B. C. H. Med. Vis. Bost. Disp.	Clin. Medicine. L.	M. G. H. Med. Vis. Eye & Ear. Inf.	B. C. H. Ophthal. & Otology. Bost. Disp.	Dis. of Nerv. Sys.
10	Theo. & Prac. L.	Clin. Surgery. L. After Dec. 1.	Dermatol. Clin.	Theo. & Pr. L.	B. C. H. Surg. Vis.	M. G. H. Surg. Vis.
11	Clin. Surg. L.		Surgery. L.	Surgery. L.	B. C. H. Op. Dis. of Children.	M. G. H. Op.
12	Obstetrics. L.	Till Dec. Surgery. L.	Obstetrics. L.	Obstetrics. R.	Venereal Dis.	Museum.
1		After Dec 1, Dis. of Nerv. Sys.				
3		Theo. & Prac. R.			Theo. & Prac. R.	
4	Therapeutics. L.	Dermatology. L.		Clinical Conf.	Therapeutics. L.	
5	Otology.					

DR. JOHN HUGHES BENNETT.

The profession of Great Britain has lost one of its most prominent members by the death of John Hughes Bennett, late professor of the institutes of medicine at Edinburgh. He died on September 25th, at the age of sixty-three, a few days after an operation for stone in the bladder. He was in all respects a remarkable man, a deep thinker and good practitioner, who united scientific and practical attributes to a degree rarely seen. He was an original investigator of great enthusiasm and keenness, who endeavored to draw practical deductions from facts or theories that to others were ends in themselves. His conclusions were, no doubt, not always sound, and he was by no means free from prejudice, but much of his work will live after him. He was an excellent teacher, endowed with the rare talent of making alike attractive and profitable to his class both his theories and his experience. Many may criticise much that is to be found in his Practice of Medicine, but no one can read it without being impressed with the vigor of the author. In microscopy he was an opponent of the cellular doctrine in its entirety, holding that granules were the really active elements. In his Practice he says, "As to development, the molecular is the basis of all the tissues. The first step in the process of organic formation is the production of an organic fluid; the second, the precipitation in it of organic molecules, from which, according to the molecular law of growth, all other textures are derived, either directly or indirectly."

In 1857 he was the leader of the reform party in the celebrated discussion on venesection, and contributed probably more than any other man to the decline of the practice. It is proper, however, to remember that he was the opponent only of its general and indiscriminate use, and had no desire to have

it numbered among the lost arts. He did good service also by protesting against the excessive use of mercury. It is, we believe, acknowledged that he was the first to recognize the combination of symptoms known as leucocythæmia.

We give some account of the case of this distinguished man, interesting in itself, which we take mostly verbatim from Mr. Cadge's account in *The British Medical Journal.*

"By slow degrees his general health failed, he grew thinner, looked pale, and lost strength. A few years ago it was discovered that he had diabetes; but this disappeared without any great rigor of treatment, and has not been thought or known to have recurred, except occasionally and very slightly. . . . Very recently, however (in August), sugar was again found; and I have before me a paper containing observations on the urine made three times daily during the first half of September, 1875, from which it is shown that, while the specific gravity and the quantity of the urine were but little, if at all, above the natural standard, sugar appeared and di-appeared in a quite irregular and intermitting way. . . .

"If," says Mr. Cadge, "in this long interval between the first and last clear recognition of diabetes, the urine was but seldom examined, and, when examined, chanced to be free from sugar, it seems probable that glycosuria, in one of its intermittent and milder forms, existed throughout, and was the true and chief cause of the emaciation and debility which, on any other hypothesis, it has been found so difficult to explain. . . .

"Be that as it may, his health continued to decline. The last three winters he passed in the south of France, with some benefit, possibly, to his bronchial and laryngeal affection, but apparently without any effect on his general state. For many years Dr. Bennett had suffered from occasional attacks of gout, and he was liable, too, to lithic acid deposit in his urine; occasionally, for several years, he had experienced some slight impediment and irritation in making water, which he thought to be due either to slight stricture or to prostatic enlargement. From time to time a simple catheter was passed, but no stricture was discovered. Last winter, at Nice, he had rather more vesical irritation than usual. . . .

"In July he came to Norwich, looking more emaciated, pale, and ill than I had ever seen him. On carefully sounding, a stone was readily felt, apparently of some size; the bladder was capacious and healthy, and could retain nearly half a pint of urine; the prostate was slightly enlarged; the urethra very sensitive and irritable; the urine was clear, acid, specific gravity 1020, and contained no albumen. He was much depressed by the knowledge that he had stone, but his innate force of character came to his aid; he looked the difficulty in the face, and was prepared at once to undergo treatment. . . . He returned to Norwich in September, and the question of operation, lithotomy or lithotrity, presented itself. Either must be attended with the greatest hazard in one so worn and unhealthy; but the thought of doing without operation was simply intolerable, and not to be considered. In favor of lithotrity were the fair quietude and healthy condition of the bladder and urine; but there were serious drawbacks. Dr. Bennett was a man of high spirit and courage; but

his courage fitted him rather to encounter one great risk than to endure the wear and tear of repeated operations, frequent use of instruments, and the probability (made more probable by the presence of glycosuria) of troublesome cystitis. The size of the stone alone could decide the point; and, to ascertain this, Mr. Clover kindly came down and administered nitrous oxide, followed by ether; while, with the lithotrite, I found that the stone measured one and a half inches by one inch. Such a stone as this was fairly within the compass of lithotrity in an otherwise favorable patient; but, in this case, I had not a moment's doubt that lithotomy, if carefully and accurately done, notwithstanding its greater immediate risk, afforded the best chance of complete recovery. In this view the patient readily acquiesced, and on the following day, September 16th, I removed the stone by lateral lithotomy, assisted by Mr. Crosse, Dr. Beverley, and Mr. Hooker. The nitrous oxide and ether were again used by Mr. Clover, with admirable effect; there was never a movement of the patient, nor the least headache or sickness afterwards. The operation was easy and satisfactory. The transverse artery of the perinæum was large, and spurted freely; it was easily tied when the stone was removed; the blood was so thin, and so little disposed to coagulate, that every little vessel continued to ooze, and I deemed it best to plug the wound round a silver tube rather than allow any quantity of blood to be lost. The stone was composed of lithic acid; it measured one and a half inches by one inch, and weighed one hundred and ninety-three grains. No more blood was lost, and urine passed freely afterwards. He suffered considerable aching pain in the wound for some hours; but it was gradually checked by half a grain of morphia introduced into the rectum at the time of operation, and twenty drops of Battley by the mouth two hours after. At night he turned cautiously on one side, took twenty grains of chloral, and had some hours' sleep. Pulse 90. . . .

"I need not record minutely the daily progress of the case. Suffice it to say that for four or five days there was a good prospect of speedy recovery; he took food plentifully and was in good spirits, and everything went on well so far as concerned the pelvis and bladder; the urine was easily caught and was clear, but loaded with sugar, with a specific gravity of 1030 to 1035. By degrees, however, the cough and expectoration became more frequent; and this, with the frequent spasm and larger amount of urine secreted, distressed him and prevented sleep. Opiates by the mouth or bowel relieved for the time, but were apt to be followed by sickness; chloral did not act well, and signs of increasing debility showed themselves. The pulse continued from 90 to 96, but became weaker and weaker. Aphthous patches gathered on the tongue and throat, and made swallowing difficult, and thus the prostration went on, and death from sheer exhaustion took place on the 25th, the tenth day after the operation.

"Post-mortem examination, forty-eight hours after death. The body was emaciated; the surface pale and bloodless. The blood was thin, and transuded through the vessels and stained the tissues. Only one small clot in the right ventricle of the heart was met with. The bladder was perfectly healthy; its muscular walls were rather thin and dilated; its mucous membrane was pale and smooth. The prostate gland was enlarged to the size of a small apple; it pro-

jected somewhat like a cornice into the bladder, and on this projecting part there were traces of slight ecchymosis beneath the mucous membrane. The lithotomy wound was clean, and so slight that, looking from the bladder, none could be seen, and on closer scrutiny it was found that the knife had only divided the mucous membrane and had scarcely reached the left lobe; this doubtless explains the power of the bladder to retain urine the moment after the tube was removed. . . . On raising the calvarium, a soft tumor was discovered situated on the right side of the head, about an inch above the ear, between the dura mater and the bone. It was about the size of a hen's egg, and projected toward the brain, so as to produce a deep pit or hollow, into which it fitted. The convolutions were flattened and pressed down, but not otherwise altered; no softening; no congestion. The dura mater covering the tumor was somewhat thickened. The parietal bone was thickened and hypertrophied around the circumference of the tumor; over it there was thinning by pressure and absorption, and at one point, about the size of a shilling, all trace of bone had disappeared, and it was replaced by fibrous membrane. The tumor had a cystoid character, with a distinct investing membrane, and its contents consisted of a blackish pulpy material resembling the interior of a recent aneurism, or more closely of a myeloid tumor. Under the microscope there were seen cells of various descriptions, plates of cholesterine, fatty granules, and altered blood-corpuscles. The brain itself was anæmic, but not, on the whole, unhealthy; it weighed forty-seven ounces. The optic thalami, corpora striata, pons Varolii, and medulla oblongata had a somewhat shrunken, atrophied appearance, and were perhaps harder and tougher than usual."

MEDICAL NOTES.

— The annual meeting of the American Public Health Association will begin at Baltimore on November 9th, and will continue four days. Judging from the programme we should think four weeks would be inadequate to the proper discussion of the many important questions that are to be brought up. It is in the nature of things that there should be much loose and unprofitable talk, but we see many names that assure us that the meeting will not be without results. The association has been very happy in its choice of officers, and, we believe, is in excellent condition.

— Dr. Robert T. Edes has been appointed professor of materia medica at the Harvard Medical School, and Dr. William L. Richardson instructor in clinical midwifery.

— The St. Louis *Clinical Record* contains a remarkable case of brain lesion. A man named Waters, living near Leavenworth, Kansas, died from morphia a short time ago, and as it was known that he had had a habit of running wires and even nails through his own skull during his former residence in the penitentiary, a careful autopsy was performed. Two openings were found in the skull, one, which the prisoner was known to have made with a brad-awl, near the inferior posterior angle of the right parietal, and another near the superior

posterior angle of the same bone. A wire was found in the brain. It had been introduced through the upper opening, and just missing the superior longitudinal sinus had pierced to the base of the brain a little in front of the fissure of Sylvius. It is stated that the corpus striatum was not wounded. A nail, one and three fourths inches in length, was found lying beside the wire. Although wires had been removed during life from the lower aperture, no trace of their course was discovered. Though the patient had shown a suicidal tendency he did not appear insane, except for this habit, and could do his work with correctness and understanding.

— The English medical journals are full of the introductory lectures at the various medical schools of London, and we may expect shortly a number of the same at various schools in this country. We regret to find that the rowdyism which appears to be a part of the show continues unabated in several London hospitals. A scene that would disgrace any legislative body seems hardly an edifying one to be the first for the new students to take part in. These lectures are and must be twice-told tales to the members of the profession, and if they are merely subjects of mirth to the neophytes, whom they should impress, we think they might as well be abolished. Everything that was once new has been said till it is old, everything brilliant till it has become stale, and everything sound till it at least appears silly. Moreover, it were well that the student should learn at his first entrance into the profession that he has devoted himself to a calling of work rather than of words.

— Recovery from a compound comminuted fracture of the entire left side of the os frontis is reported by Dr. E. VonDonhoff to the *American Medical Weekly*. The patient, a boy, fell some fifty feet, from the top of a three-story wall. The left side of the frontal bone was crushed in, and the eye of the same side was held as in a vice between the supra and infra orbital ridges. The boy was comatose and bleeding from the nose, mouth, and injured orbit. A projecting fragment of bone, about the size of a silver quarter, was removed by the fingers; an elevator was then introduced and the remaining fragments pushed into position. The patient soon revived, and made an uninterrupted recovery. The treatment was the application locally of cold compresses, and internally the administration of bromide of potassium.

— A case of triplets complicated with double uterus is reported by A. G. Duncan, M. B., to the *British Medical Journal* of September 18, 1875. Dr. Duncan was called to see a patient in her fifth pregnancy on December 25, 1873. She was eight and a half months advanced, and was troubled because she was different in shape and size from what she had ever been in previous pregnancies. Examination showed the abdomen to be wide, large, and falling forward. There was a well-marked depression from above downwards, and a little to the left side. This depression was a distinct division between two tumors, the one on the left being the larger. Fœtal heart-sounds could be heard in both, and the diagnosis of a double impregnated uterus was made. December 27th, at seven P. M., the os was fully dilated and the head presenting in the first position. Soon after, a healthy female weighing six pounds, and a little later another female child of nearly the same size, presenting by the breech, were born. A double placenta came away. There was now the

well-contracted womb in the lower part of the abdomen on the right side, but the left-hand tumor remained. In six hours another female child, weighing over seven pounds, appeared. After the separation of the placenta the tumors were of about equal size. After recovery of the patient an examination showed that the external os was single, the opening being much elongated from side to side, but on tilting it forward the divided septum was distinctly seen. A uterine sound could be introduced into each cavity, and the septum felt by the introduction of the finger.

— Another epidemic of typhoid fever, whose origin is attributed to the distribution of infected milk, has occurred at Jarrow, in England. According to the report of the Health Officer, Dr. Spear, as furnished to *The Sanitary Record* of September 18, 1875, the district had been tolerably free from the disease for some weeks, when suddenly on August 13th he found that it had invaded houses in all parts of the town. Between August 3d and 19th no less than thirty-four cases occurred in twenty different families. The houses were, with two exceptions, clean, and to nothing in them or their surroundings could this outbreak of fever be attributed. As house after house was visited it was found that the milk-supply was obtained almost invariably from the same source. On visiting the farm from which the milk came it was found that six of the farmer's family were sick with typhoid fever. The water used in the dairy was derived from a well situated about eighteen yards from a privy and cess-pit, the latter being simply a hole dug in the ground, and not in any way paved or otherwise protected. This had been in existence for years, and in it the discharges of the fever patients had lately been deposited. There could be no question that soakage had been going on into the well from the privy and cesspit. A quantity of the well-water that had been standing in the dairy for two days was quite putrid. It was quite unfit for domestic purposes, and contained, on analysis, free, saline and organic ammonia. Analysis of the milk showed it to be of poor quality, but not necessarily adulterated by the addition of water. One consumer complained that the taste of the milk was excessively disagreeable, and another that it soured very quickly. It is not, however, necessary to prove the fraudulent adulteration of the milk, for it has been shown in other cases that the washing of cans with polluted water is sufficient to contaminate it. All the arrangements of the farm were found to be of a disgusting kind. There was direct communication between the dairy and a room in which some of the fever patients were lying, and the dairy was used as a wash-house, where clothes of the sick had been washed. The fever had been in the family about a fortnight before the outbreak occurred in the district.

Dr. Spear thinks that if the facts are well considered no one will venture to say that the outbreak of disease fell so heavily on the farmer's customers by mere coincidence. At least eighteen other farmers and dealers send on an average an equal quantity of milk into the district, and yet their names were scarcely mentioned in the course of the inquiry. Of the twenty-seven families supplied from the farm in question, eleven suffered, and from the moment the supply was cut off from the town, and proper sanitary measures instituted, the spread of the disease was stayed.

THE OTHER SIDE.

MESSRS. EDITORS. — Your article the other day on the metric system suggests a few remarks, which I hope you will be kind enough to publish.

It is well known that this system, attractive as it is at first sight, has never been entirely popular even in the country of its birth, and that the old denominations of weights, measures, and currency are still in common use in France, especially among the masses and in the rural districts.

The reason is that the natural method of subdivision is not by decimating, but by halving and quartering. If you wish to divide a string, an apple, or a bar of soap, it is very easy to cut it into halves or quarters or eighths or sixteenths by the eye with a good degree of accuracy; to divide it into thirds, fifths, or tenths is extremely difficult, and requires nice measuring and weighing. Now tradesmen, grocers, apothecaries, and the like always divide first by the eye and then verify with the scales. Our present system, confused as it is, is in conformity with this natural method of subdivision, hence its popularity and convenience.

This defect of the decimal system has always been felt, even in arithmetical notation. Hence a duodecimal system of notation has often been advocated by mathematicians in place of the decimal one now in use. The number 12 has four factors, 2, 3, 4, and 6, while 10 has only two, 2 and 5. It is evident that calculation would be facilitated by such a notation.

Our present system of weights and measures is a duodecimal system based, as all the world knows, on the Roman *as* and its twelve *unciæ*. It is universally known both in Europe and in America. It has stood the test of two thousand years. It is an old friend. Let us spare it.

We know the national fondness for innovations; let us remember that there is another "great nation" which has a similar weakness, and that French experimentations are not always attended with the most imposing results.

We have no time to criticise the nomenclature of the new system or its utter inconsonance with natural and preëxisting standards.

Perhaps enough has been said to show that there are objections to it, not only practical but scientific and mathematical.

With great respect, E. T. W.

WEEKLY BULLETIN OF PREVALENT DISEASES.

THE following is a bulletin of the diseases prevalent in Massachusetts during the week ending October 23, 1875, compiled under the authority of the State Board of Health from the returns of physicians representing all sections of the State: —

The summary for each section is as follows: —

Berkshire: Bronchitis, influenza.

Valley: Typhoid fever, influenza, bronchitis, rheumatism. Diphtheria has increased. Springfield reports typhoid fever very prevalent.

Midland: Typhoid fever, influenza, bronchitis, rheumatism. Diphtheria is increasing again, and scarlatina is more prevalent.

Northeastern: Influenza, typhoid fever, scarlatina. Scarlatina is especially prevalent in the cities and towns in the eastern part of Essex County. Gloucester reports diphtheria.

Metropolitan: Bronchitis, typhoid fever, influenza. Diphtheria has subsided. Scarlatina has increased.

Southeastern: Typhoid fever, influenza, bronchitis. Diphtheria continues along the South Shore, but it is declining. Scarlatina is increasing.

In the State at large, influenza and bronchitis prevail extensively; their coincidence with the epizoötic catarrh is noteworthy. Diphtheria and scarlatina have increased. The diarrhœal affections have very nearly disappeared. The prevailing type of disease is mild.

F. W. Draper, M. D., Registrar.

COMPARATIVE MORTALITY-RATES FOR THE WEEK ENDING OCT. 16, 1875.

	Estimated Population.	Total Mortality for the Week.	Annual Death-Rate per 1000 during Week.
New York	1,060,000	487	24
Philadelphia	800,000	326	21
Brooklyn	500,000	216	22
Chicago	400,000	139	18
Boston	342,000	162	25
Cincinnati	260,000	95	19
Providence	100,700	49	25
Worcester	50,000	14	15
Lowell	50,000	25	26
Cambridge	48,000	19	21
Fall River	45,000	15	17
Lawrence	35,000	14	21
Lynn	33,000	11	17
Springfield	31,000	13	22
Salem	26,000	11	22

Normal Death-Rate, 17 per 1000.

Suffolk District Medical Society. — Stated meeting, Saturday, October 30th.

Dr. A. Young: Oxygen as a Corrective in the Anæsthetic Use of Chloroform, and as an Antidote in Asphyxia.

Dr. B. Joy Jeffries: Report on Cases of Cataract Operations.

Dr. J. R. Chadwick: Extirpation of the Uterus by Abdominal Section.

Members of other State and District societies are cordially invited.

The Boston Society for Medical Observation will meet Monday, November 1st. Dr. Swan will read a paper on a case of Painful Tumor near the Cæcum. There will be a discussion on depositing the library with the Boston Medical Library Association.

Books and Pamphlets Received. — Therapeutics, Materia Medica, and Toxicology. By H. C. Wood, Jr., M. D. Second Edition. Revised and Enlarged. Philadelphia: J. B. Lippincott & Co. 1876. (For sale by A. Williams & Co.)

Human Physiology for Students and Practitioners. By John C. Dalton, M. D. Sixth Edition. Revised and Enlarged. Philadelphia: Henry C. Lea. 1875. (For sale by A. Williams & Co.)

Two Thousand Years After; or a Talk in a Cemetery. By John Darby. Philadelphia: Claxton, Remsen, and Haffelfinger. 1876. (For sale by Lockwood, Brooks, & Co.)